



## UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/704,539	11/03/2000	Ken Kitamura	44084-479	4655

7590 12/19/2003  
McDermott Will & Emery  
600 13th Street NW  
Washington, DC 20005-3096

EXAMINER

KAO, CHIH CHENG G

ART UNIT	PAPER NUMBER
----------	--------------

2882

DATE MAILED: 12/19/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Advisory Action**

Application No.

09/704,539

Examiner

Chih-Cheng Glen Kao

Applicant(s)

KITAMURA ET AL.

Art Unit

2882

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 10 November 2003 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

**PERIOD FOR REPLY** [check either a) or b)]

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.  
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.  
ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on \_\_\_\_\_. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.  
2. ☐ The proposed amendment(s) will not be entered because:  
(a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);  
(b) ☐ they raise the issue of new matter (see Note below);  
(c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
(d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.  
NOTE: \_\_\_\_\_

3. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.  
4. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
5. ☒ The a) ☐ affidavit, b) ☐ exhibit, or c) ☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Continuation Sheet.  
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.  
7. ☒ For purposes of Appeal, the proposed amendment(s) a) ☐ will not be entered or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: \_\_\_\_\_

Claim(s) objected to: \_\_\_\_\_

Claim(s) rejected: 1,2 and 4-28

Claim(s) withdrawn from consideration: \_\_\_\_\_

8. ☐ The drawing correction filed on \_\_\_\_\_ is a) ☐ approved or b) ☐ disapproved by the Examiner.  
9. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.  
10. ☒ Other: See Continuation Sheet

  
EDWARD A. GLICK  
SUPERVISORY PATENT EXAMINER

Continuation of 5. does NOT place the application in condition for allowance because: Arguments were addressed in the Office Action made of record on 7/11/2003. See Page 21 of the Office Action, for example. As noted in Nakayama et al. (col. 3, lines 17-20, and col. 4, lines 58-69), any of these semiconductor materials can be interchanged. Thus Nakayama et al. teaches any combination. As to Takahashi et al., Kobayashi et al., Sugawa, Deane et al., Anagnostophulos, Ota, Waki et al., Fukuda et al., and Kozuka et al., not suggesting this alleged deficiency, the Examiner also disagrees with this, since Kozuka et al. teaches n-type a-SiN as well (Paragraph 23). Thus, if the teachings of Takahashi et al., Kobayashi et al., Sugawa, Deane et al., Anagnostophulos, Ota, Waki et al., Fukuda et al., and Kozuka et al. were combined with the disclosure of Nakayama et al., the claimed invention would result. As to the Sugawa reference, Sugawa does teach the energy levels (Figs. 6 and 7). As shown in Figure 6, level changes occur with changes in electric field. Thus, this implies that these photoelectric conversion devices have these energy levels, based on the electric field applied. As to the Deane et al. reference, Deane et al. does relate to photoelectric conversion devices (col. 1, lines 15-20, "image sensor"), thus the reference is relevant. As to the Takasaki et al. reference, Takasaki et al. does teach the blocking layer on a substrate (Fig. 1A) as stated on Page 21 of the 7/11/2003 Office Action. The arguments presented by the Applicant do not directly argue against this point. In fact, the Applicant's argument further strengthens this point, in that if a "blocking layer 15 is formed on electrode 16 which is formed on substrate 11", then the blocking layer is on the substrate, indirectly in this case.

Continuation of 10. Other: The replacement drawings filed on November 10, 2003, have been received and approved.